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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,166	08/21/2001	Yuji Sano	122.1466	6450
21171	7590	10/04/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			LEE, WILSON	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/933,166

Applicant(s)

SANO ET AL.

Examiner

Wilson Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25,28-33,35,37-40,63-79 and 82-98 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-25,28-33,35,37-40,63-79 and 82-98 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Remarks**

Upon further consideration, the claims should be restricted into several inventions. Examiner apologizes for any inconvenience. The office action is written as follows.

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8, 9-16, 17-25, 28-32, 35, 37-40, 69, 71-79, 82-98 drawn to a power distributor device, classified in class 345, subclass 211.
- II. Claim 33, drawn to an ON/OFF state power selector, classified in class 345, subclass 214.
- III. Claim 63, drawn to a flip-flop triggering power device, classified in class 345, subclass 78.
- IV. Claim 64, drawn to a buffering power device, classified in class 345, subclass 560.
- V. Claims 65-67, 68, 70, drawn to a power interference avoidance circuit, classified in class 345, subclass 212.

The inventions are distinct, each from the other because of the following reasons:

Claims 1-8 (ABbr) is a group of evidence claims which indicates that the combination does not rely upon the specific details (e.g. switching the output voltage between the plurality of voltage levels within a drive voltage amplitude, while retaining ON/OFF states of the driving device) of the subcombination for its patentability. If claim

ABbr is subsequently found to be unallowable, the question of rejoinder of the inventions restricted must be considered and the letter to the applicant should so state. Therefore, where the combination evidence claim ABbr does not set forth the details of the subcombination Bsp (Invention II) and subcombination Bsp has separate utility (e.g. ON/OFF toggle), the inventions are distinct and restriction is proper if reasons exist for insisting upon the restriction.

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination described in Invention I does not require a switching the output voltage between the plurality of voltage levels within a drive voltage amplitude, while retaining ON/OFF states of the driving device. The subcombination has separate utility such as an ON/OFF toggle.

Claims 1-8 (ABbr) is a group of evidence claims which indicates that the combination does not rely upon the specific details (e.g. a flip-flop drives a control input of the output device to a full-wing level) of the subcombination for its patentability. If claim ABbr is subsequently found to be unallowable, the question of rejoinder of the inventions restricted must be considered and the letter to the applicant should so state. Therefore, where the combination evidence claim ABbr does not set forth the details of the subcombination Bsp (Invention III) and subcombination Bsp has separate utility (e.g.

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power trigger, power reservation device, etc), the inventions are distinct and restriction is proper if reasons exist for insisting upon the restriction.

Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination described in Invention I does not require a flip-flop for driving a control input of the output device to a full-wing level. The subcombination has separate utility such as power trigger, power reservation device, etc.

Claims 1-8 (ABbr) is a group of evidence claims which indicates that the combination does not rely upon the specific details (e.g. a buffer, an inverting input, and thereby supplying self-biasing to the driving device by a voltage drop) of the subcombination for its patentability. If claim ABbr is subsequently found to be unallowable, the question of rejoinder of the inventions restricted must be considered and the letter to the applicant should so state. Therefore, where the combination evidence claim ABbr does not set forth the details of the subcombination Bsp (Invention VI) and subcombination Bsp has separate utility (e.g. voltage buffering, stable power regulator, etc), the inventions are distinct and restriction is proper if reasons exist for insisting upon the restriction.

Inventions I and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination described in Invention I does not require a buffer, an inverting input, and thereby supplying self-biasing to the driving device by a voltage drop. The subcombination has separate utility such as voltage buffering, stable power regulator, etc.

Claims 1-8 (ABbr) is a group of evidence claims which indicates that the combination does not rely upon the specific details (e.g. interference avoiding device to suppress an excess drive current flowing into the load) of the subcombination for its patentability. If claim ABbr is subsequently found to be unallowable, the question of rejoinder of the inventions restricted must be considered and the letter to the applicant should so state. Therefore, where the combination evidence claim ABbr does not set forth the details of the subcombination Bsp (Invention V) and subcombination Bsp has separate utility (e.g. current interference avoidance device), the inventions are distinct and restriction is proper if reasons exist for insisting upon the restriction.

Inventions I and V are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP §

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806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination described in Invention I does not require an interference avoiding device to suppress an excess drive current flowing into the load. The subcombination has separate utility such as a current interference avoidance device.

Inventions II, III, IV and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as an ON/OFF toggle. Invention III has separate utility such as power trigger, power reservation device, etc. Invention IV has separate utility such as voltage buffering, stable power regulator, etc. Invention V has separate utility such as a current interference avoidance device. See MPEP § 806.05(d).

An election of a particular species as described below is required in the instance where the invention of Group I is elected.

This application contains claims directed to the following patentably distinct species of the claimed invention. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

- Species 1: a high power distributor for capacitive loads defined by claims 1-8, 17-25, 28-32, and illustrated in Figure 3;
- Species 2: a low power distributor for capacitive loads defined by claims 9-16, 69 and illustrated in Figures 10-12;

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- Species 3: a bi-directional power distributor for capacitive loads defined by claims 35, 37-40 and illustrated in Figures 13, 16-19.
- Species 4: a driving device integral with substrate defined by 71-79, 82-98 and illustrated in Figure 20.

Currently, there is no generic claim.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

An election of a particular species as described below is required in the instance where the invention of Group V is elected.

This application contains claims directed to the following patentably distinct species of the claimed invention. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

- Species 1, a high power interference avoidance circuit for capacitive loads defined by claims 65-67, and illustrated in Figure 5;
- Species 2, a low power interference avoidance circuit for capacitive loads defined by claims 68, 70 and illustrated in Figure 12.

Currently, there is no generic claim.



Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

### **Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Wilson Lee", is written over a horizontal line.

Wilson Lee  
Primary Examiner  
U.S. Patent & Trademark Office

9/29/04